

**REMARKS**

Please reconsider the application in view of the above amendments and the following remarks. Applicant thanks the Examiner for carefully considering this application.

**Disposition of Claims**

Claims 1-3 are now pending in this application. Claims 1-3 are independent.

**Claim Amendments**

Independent claims 1-3 have been amended to clarify that, in response to an instruction to switch a channel, the channel is changed after a hard disk is set in a pause state and in a recording-wait state. No new matter has been added by way of these amendments, as support for the amendments may be found, for example, in paragraph [0024] of the publication of the Specification. In addition, these amendments do not raise new issues or require new search, or at least simplify issues for appeal. Accordingly, entry and favorable consideration is respectfully requested.

**Claim Rejections under 35 U.S.C. §103**

Claims 1-3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,257,308 to Plourde, Jr. *et al.* (hereinafter “Plourde”) in view of U.S. Patent No. 6,748,481 to Parry *et al.* (hereinafter “Parry”). Independent claims 1-3 have been amended to as explained above. To the extent that this rejection may still apply to the amended claims, the rejection is respectfully traversed for at least the reasons set forth below.

One or more embodiments of the present invention are directed to a hard disk recorder having a time-shift playback function. With reference to Figure 3B of the present application,

for example, a control unit 10 sets a hard disk in a pause state in response to an instruction to switch a channel (SP11), and sets the hard disk in a recording-wait state from the pause state (SP12). Then, the control unit 10 switches the channel without stopping the HDD 6 (SP13), setting the hard disk in a playback state (SP15) if the hard disk has been determined to be in the recording-wait state (SP14). Thus, in contrast to a conventional method as shown in Figure 3A of the present invention, the sector address played back most recently is not cleared when changing the channel because HDD is not completely stopped. Therefore, it is not necessary to stop the time-shift play function when changing the channel (*see, e.g.*, Publication of the Specification paragraph of [0027]).

Accordingly, amended independent claims 1 and 2 require, in part, a control unit configured to respond to a channel-switch instruction by setting said hard disk in a pause state from which a storing operation can be started, setting said hard disk in a recording-wait state, switching the channel, and, according to a determination that said hard disk is in the recording-wait state, setting said hard disk in a playback state. Amended independent claim 3 requires, in part, setting the hard disk in a pause state, then, setting the hard disk in a recording-wait state from the pause state, and, then, switching the channel after setting the hard disk in the recording-wait state, then, determining whether the hard disk is in the recording-wait state, and, then, setting the hard disk in a playback state if the hard disk has been determined to be in the recording-wait state.

In contrast, Plourde and Parry fail to show or suggest at least the specific combinations of limitations set forth above as required by amended independent claims 1-3.

In fact, as explained in the previous Response, Plourde only teaches that the navigator 355 registers or reserves some user inputs and that the pause button 391 enables the user to pause a media content or to pause during a search *separately*. Specifically, Plourde teaches “[t]he navigator 355 registers for and in some cases reserves certain user inputs related to navigational keys such as channel increment/decrement, last channel, favorite channel, etc” (see Plourde, column 15, lines 24-27). Also, Plourde teaches “the [p]ause button 391 enables the user to pause a media content instance, or pause during a search for a particular media content instance” (see Plourde, column 30, lines 15-18). Further, as acknowledged by the Examiner, Plourde is completely silent with respect to “setting a hard disk into a recording-wait state, determining the disk to be in a recording-wait state, and then setting the hard disk in a play back state” (see Office Action dated May 1, 2008, at page 4).

Thus, Plourde is completely silent with respect to the specific timing of switching a channel as required by amended independent claims 1 and 2. That is, Plourde does not show or suggest at least that in response to an instruction to switch a channel, the channel is changed *after* a hard disk is set in a pause state and in a recording-wait state. Therefore, Plourde necessarily cannot show or suggest a control unit configured to *respond to a channel-switch instruction by setting said hard disk in a pause state from which a storing operation can be started, setting said hard disk in a recording-wait state, switching the channel, and, according to a determination that said hard disk is in the recording-wait state, setting said hard disk in a playback state*, as required by amended independent claims 1 and 2.

Parry, like Plourde, does not show or suggest at least the specific combinations of limitations set forth above as required by amended independent claims 1 and 2.

Specifically, with respect to a relationship between a time shifting function and changing a channel, Parry teaches nothing more than that when a channel is changed, writer module 122 record the streaming information associated with new broadcast channel in circular buffer 124 (*see* Parry, column 15, lines 39-41). Further, the Examiner relied upon Parry merely to allege that setting a hard disk into a recording wait-state, determining the disk to be in a recording-wait state, and, then, setting the hard disk in a play back state is well-known without pointing to any specific aspect of Parry that shows or suggests switching a channel (*see* Office Action dated May 1, 2008, at page 5).

Parry is completely silent with respect to the specific timing of switching a channel as required by amended independent claims 1 and 2. That is, Parry does not show or suggest at least that in response to an instruction to switch a channel, the channel is changed *after* a hard disk is set in a pause state and in a recording-wait state. Therefore, Parry necessarily cannot show or suggest a control unit configured *to respond to a channel-switch instruction by setting said hard disk in a pause state* from which a storing operation can be started, *setting said hard disk in a recording-wait state, switching the channel*, and, according to a determination that said hard disk is in the recording-wait state, *setting said hard disk in a playback state*, as required by amended independent claims 1 and 2.

Further, even assuming that “[a]s is understood by those of skill in the art, whenever a new stream is encountered, such as during a change of channel, it is impossible to decode that stream immediately, and therefore, must wait (pause) for at least 1 frame to begin decoding the stream,” as alleged by the Examiner, the alleged operation or structure does not show or suggest at least the specific combinations of above limitations as required by amended independent claims 1 and 2.

In fact, the operation or structure cited by the Examiner teaches nothing more than that, because it is impossible to decode a new stream immediately, the decoder must wait for at least 1 frame. That is, the alleged operation or structure is completely silent with respect to the specific timing of switching a channel among the operations of setting a hard disk in a pause state, setting the hard disk in a recording-wait state, switching the channel, and setting the hard disk in a playback state, as required by amended independent claims 1 and 2.

Therefore, the alleged operation or structure fails to show or suggest a control unit configured *to respond to a channel-switch instruction by setting said hard disk in a pause state from which a storing operation can be started, setting said hard disk in a recording-wait state, switching the channel, and, according to a determination that said hard disk is in the recording-wait state, setting said hard disk in a playback state*, as required by amended independent claims 1 and 2.

In view of above, Plourde, Parry, and the operation or structure alleged by the Examiner, whether taken separately or in combination, fail to show or suggest the invention as recited in amended independent claims 1 and 2. Thus, amended independent claims 1 and 2 are patentable over Plourde, Parry, and the operation or structure. In view of the similarity between the limitations of amended independent claim 3 and the limitations discussed above with respect to amended independent claims 1 and 2, Applicant respectfully submits that the foregoing arguments as to the patentability of amended independent claims 1 and 2 also demonstrate the patentability of amended independent claim 3. Thus, the withdrawal of the rejection is respectfully requested.

**Conclusion**

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591, Reference No. 04536/015001.

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Respectfully submitted,

By: 

Jonathan P. Osha  
Registration No.: 33,986  
OSHA · LIANG LLP  
1221 McKinney St., Suite 2800  
Houston, Texas 77010  
(713) 228-8600  
(713) 228-8778 (Fax)  
Attorney for Applicant